

REMARKS

The Office Action dated December 30, 2004, has been received and carefully considered. In this response, claims 1-4, 11-14, and 20 have been amended. Entry of the amendments to claims 1-4, 11-14, and 20 is respectfully requested. Reconsideration of the outstanding rejections in the present application is also respectfully requested based on the following remarks.

I. THE ANTICIPATION REJECTION OF CLAIMS 1-10 AND 20

On pages 2-6 of the Office Action, claims 1-10 and 20 were rejected under 35 U.S.C. § 102(e) as being anticipated by Ruffini (U.S. Patent No. 6,532,274). This rejection is hereby respectfully traversed with amendment.

Under 35 U.S.C. § 102, the Patent Office bears the burden of presenting at least a prima facie case of anticipation. In re Sun, 31 USPQ2d 1451, 1453 (Fed. Cir. 1993) (unpublished). Anticipation requires that a prior art reference disclose, either expressly or under the principles of inherency, each and every element of the claimed invention. Id. "In addition, the prior art reference must be enabling." Akzo N.V. v. U.S. International Trade Commission, 808 F.2d 1471, 1479, 1 USPQ2d 1241, 1245 (Fed. Cir. 1986), cert. denied, 482 U.S. 909 (1987).

That is, the prior art reference must sufficiently describe the claimed invention so as to have placed the public in possession of it. In re Donohue, 766 F.2d 531, 533, 226 USPQ 619, 621 (Fed. Cir. 1985). "Such possession is effected if one of ordinary skill in the art could have combined the publication's description of the invention with his own knowledge to make the claimed invention." Id..

Regarding claim 1, the Examiner asserts that Ruffini teaches a method for synchronizing clocks in a network comprising: receiving a first timestamp and a second timestamp each indicating a respective time instance as determined by a first clock signal within the network (Figure 1; column 13, lines 29-33; column 20, lines 27-31); measuring a first time interval between the first timestamp and the second timestamp (column 13, lines 57-65; column 20, lines 32-47); generating a difference signal representing a difference between the first time interval and a second time interval (column 13, lines 57-65; column 20, lines 45-53); and generating a second clock signal based upon the difference signal such that the second clock signal is synchronized with the first clock signal (column 13, lines 27-28 and 57-65; column 20, lines 25-26 and 38-44).

However, it is respectfully submitted that Ruffini fails to teach, or even suggest, a method for synchronizing clocks in a

network comprising: receiving a first timestamp and a second timestamp each indicating a respective time instance within the network; measuring a first time interval between the first timestamp and the second timestamp as determined by a first clock signal; measuring a second time interval between the first timestamp and the second timestamp as determined by a second clock signal; generating a difference signal representing a difference between the first time interval and the second time interval; and generating the second clock signal based upon the difference signal such that the second clock signal is synchronized with the first clock signal, as presently claimed. Indeed, Ruffini fails to teach, or even suggest, anything regarding the measuring of time intervals between a first timestamp and a second timestamp based upon two separate clock signals, wherein the time intervals are differenced so as to synchronize the two separate clock signals. Thus, it is respectfully submitted that Ruffini does not teach, or even suggest, the presently claimed invention. Accordingly, it is respectfully submitted that claim 1 should be allowable.

Claims 2-10 are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 2-10 should also be allowable at least by virtue of their dependency on independent claim 1. Moreover, these

claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination. For example, claim 2 now recites that the method further comprises delaying the first timestamp by a first delay amount so as to measure the first time interval between the first timestamp and the second timestamp as determined by the first clock signal. It is respectfully submitted that Ruffini does not teach, or even suggest, this claimed feature. Accordingly, it is respectfully submitted that claim 2 should be allowable. Also, claim 3 now recites that the method further comprises delaying the first timestamp by a second delay amount so as to measure the second time interval between the first timestamp and the second timestamp as determined by the second clock signal. It is respectfully submitted that Ruffini does not teach, or even suggest, this claimed feature. Accordingly, it is respectfully submitted that claim 3 should be allowable. Further, claim 4 now recites that the first delay amount and the second delay amount are substantially equal delay amounts. It is respectfully submitted that Ruffini does not teach, or even suggest, this claimed feature. Accordingly, it is respectfully submitted that claim 4 should be allowable. Additionally, regarding claims 5-10, the Examiner asserts that the recited

limitations are inherent in Ruffini. However, as stated in MPEP § 2112, "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Regarding claim 20, the same arguments apply as set forth above with respect to claim 1.

In view of the foregoing, it is respectfully requested that the aforementioned anticipation rejection of claims 1-10 and 20 be withdrawn.

II. THE OBVIOUSNESS REJECTION OF CLAIMS 11-19

On pages 7-10 of the Office Action, claims 11-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ruffini (U.S. Patent No. 6,532,274) in view of Rokugo (U.S. Patent No. 5,864,248). This rejection is hereby respectfully traversed with amendment.

Under 35 U.S.C. § 103, the Patent Office bears the burden of establishing a prima facie case of obviousness. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The Patent Office can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of references. Id. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). That is, under 35 U.S.C. § 103, teachings of references can be combined only if there is some suggestion or motivation to do so. Id. However, the motivation cannot come from the applicant's invention itself. In re Oetiker, 977 F.2d 1443, 1447, 24 USPQ2d 1443, 1446 (Fed. Cir. 1992). Rather, there must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the art would make the combination. Id.

Regarding claim 11, the Examiner asserts that Ruffini discloses: a receiver for receiving a first timestamp and a second timestamp each indicating a respective time instance as determined by a first clock signal within the network (Figure 1;

column 13, lines 29-33; column 20, lines 27-31); a first differencing element for measuring a first time interval between the first timestamp and the second timestamp (column 13, lines 57-65; column 20, lines 32-47); a second differencing element for generating a difference signal representing a difference between the first time interval and a second time interval (column 13, lines 57-65; column 20, lines 45-53); and a variable oscillator for generating a second clock signal based upon the difference signal such that the second clock signal is synchronized with the first clock signal (column 13, lines 27-28 and 57-65; column 20, lines 25-26 and 38-44). The Examiner acknowledges that Ruffini fails to disclose a phase-locked loop associated with a receiver. The Examiner then goes on to assert that Rokugo discloses a phase-locked loop associated with a receiver, and thus it would have been obvious to combine the teachings of Ruffini and Rokugo so as to arrive at the claimed invention.

However, it is respectfully submitted that Ruffini and Rokugo, either alone or in combination, fail to teach, or even suggest, an apparatus for synchronizing clocks in a network comprising: a receiver for receiving a first timestamp and a second timestamp each indicating a respective time instance within the network; and a phase-locked loop associated with the

receiver, wherein the phase-locked loop comprises: a first differencing element for measuring a first time interval between the first timestamp and the second timestamp as determined by a first clock signal; a second differencing element for measuring a second time interval between the first timestamp and the second timestamp as determined by a second clock signal; a third differencing element for generating a difference signal representing a difference between the first time interval and the second time interval; and a variable oscillator for generating the second clock signal based upon the difference signal such that the second clock signal is synchronized with the first clock signal, as presently claimed. Indeed, neither Ruffini nor Rokugo teach, or even suggest, either alone or in combination, anything regarding the measuring of time intervals between a first timestamp and a second timestamp based upon two separate clock signals, wherein the time intervals are differenced so as to synchronize the two separate clock signals. Thus, it is respectfully submitted that Ruffini and Rokugo, either alone or in combination, do not teach, or even suggest, the presently claimed invention. Accordingly, it is respectfully submitted that claim 11 should be allowable.

Claims 12-19 are dependent upon independent claim 11. Thus, since independent claim 11 should be allowable as

discussed above, claims 12-19 should also be allowable at least by virtue of their dependency on independent claim 11. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination. For example, claim 12 now recites that the apparatus further comprises a first delay element for delaying the first timestamp by a first delay amount so as to measure the first time interval between the first timestamp and the second timestamp as determined by the first clock signal. It is respectfully submitted that Ruffini and Rokugo, either alone or in a combination, do not teach, or even suggest, this claimed feature. Accordingly, it is respectfully submitted that claim 12 should be allowable. Also, claim 13 now recites that the apparatus further comprises a second delay element for delaying the first timestamp by a second delay amount so as to measure the second time interval between the first timestamp and the second timestamp as determined by the second clock signal. It is respectfully submitted that Ruffini and Rokugo, either alone or in a combination, do not teach, or even suggest, this claimed feature. Accordingly, it is respectfully submitted that claim 13 should be allowable. Further, claim 14 now recites that the first delay amount and the second delay amount are substantially equal delay amounts.

It is respectfully submitted that Ruffini and Rokugo, either alone or in a combination, do not teach, or even suggest, this claimed feature. Accordingly, it is respectfully submitted that claim 14 should be allowable. Additionally, regarding claims 15-19, the Examiner asserts that the recited limitations are inherent in Ruffini and Rokugo. However, as stated in MPEP § 2112, "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 11-19 be withdrawn.

III. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an

early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

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